

In The Claims

Please amend the claims as follows:

Claims 1-18 (Cancelled)

Please add the following new claims:

19.(NEW) Knitted fabric wherein piezoresistive sensors for the monitoring of movement and breathing, electrodes for the monitoring of cardiac activity and breathing, and conductive connections for the transmission of signals are integrated, wherein said knitted fabric is made of multiple layers where sensors, electrodes and connections are located.

20.(NEW) Knitted fabric according to claim 19 wherein said piezoresistive sensors are realized by regions of fabric made of piezoresistive yarns.

21.(NEW) Knitted fabric according to claim 20 wherein said piezoresistive sensors are realized by the so-called "intarsia" technique.

22.(NEW) Knitted fabric according to claim 19 wherein said electrodes and said conductive connections are realized by conductive yarns.

23.(NEW) Knitted fabric according to claim 22 wherein said electrodes and said conductive connections are made using a tubular intarsia technique.

24.(NEW) Knitted fabric according to claim 19 wherein said electrodes are made of metal yarns twisted with standard yarns.

25.(NEW) Knitted fabric according to claim 20 wherein said piezoresistive yarns are elastic yarns composed by electro-conductive fibers or synthetic fibers containing dispersed phases or shells of conductive materials.

26.(NEW) Knitted fabric according to claim 20 wherein said piezoresistive yarns are made with a lycra-based fabric coated with carbon loaded rubber.

27.(NEW) Knitted fabric according to claim 19 wherein said conductive connections are made of metal yarns twisted with standard yarns.

28.(NEW) Knitted fabric according to claim 19 wherein said knitted fabric is made using the double-bed jersey technique.

29.(NEW) Knitted fabric according to claim 19 wherein said knitted fabric is made of multiple layers in a way that electrodes are placed in contact with the skin of the user under examination while connections are insulated by a layer of fabric which separates them from the user's body.

30.(NEW) Knitted fabric according to claim 19 wherein said piezoresistive sensors and said electrodes are located as reported on figure (1).

31.(NEW) Knitted fabric according to claim 19 wherein said electrodes are located as reported on figure (6).

32.(NEW) Knitted fabric according to claim 19 wherein said knitted fabric is employed in cut and sewn clothes and garments.

33.(NEW) Knitted fabric according to claim 31 wherein the sleeves comprised in said clothes and garments have a shape that is cut from said fabric, rotated with respect to knitting direction so that course in said sleeves are parallel to arm length.

34.(NEW) A method for the detection of signals related to ECG, EOG, EMG, respiratory activity or respiratory frequency, said method comprises:

using a knitted fabric wherein piezoresistive sensors for the monitoring of movement and breathing, electrodes for the monitoring of cardiac activity and breathing, and conductive connections for the transmission of signals are integrated, wherein said knitted fabric is made of multiple layers where sensors, electrodes and connections are located.

35.(NEW) A method for the detection of signals related to movement activity, said method comprising:

using a knitted fabric wherein piezoresistive sensors for the monitoring of movement and breathing, electrodes for the monitoring of cardiac activity and breathing, and conductive connections for the transmission of signals are integrated, wherein said knitted fabric is made of multiple layers where sensors, electrodes and connections are located.

36.(NEW) A method for the detection of impedance pneumography, said method comprising:

using a knitted fabric wherein piezoresistive sensors for the monitoring of movement and breathing, electrodes for the monitoring of cardiac activity and breathing, and conductive connections for the transmission of signals are integrated, wherein said knitted fabric is made of multiple layers where sensors, electrodes and connections are located.

37.(NEW) Process for the production of a knitted fabric wherein piezoresistive sensors for the monitoring of movement and breathing, electrodes for the monitoring of cardiac activity and breathing, and conductive connections for the transmission of signals are integrated, wherein said knitted fabric is made of multiple layers where sensors, electrodes and connections are located, wherein said knitted fabric is made using the double-bed jersey technique.

38.(NEW) Process according to claim 37 wherein said electrodes and said conductive connections are made using the so-called "tubular intarsia technique".

39.(NEW) Process according to claim 38 wherein said knitted fabric is made with double bed weft knitting machines.